

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003832**Date Inspected:** 30-Aug-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2230**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Fu Yu Hong**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the fabrication scheduled for this project at the ZPMC facility in Shanghai, China for the San Francisco Oakland Bay Self Anchored Suspension Bridge.

The QA inspector observed ZPMC representative Xu Rong Gang performing ultrasonic testing (UT) verifications at the deck panel splices DP-078-001 and DP-079-001 weld joint SEG-020-003 and deck panel DP-077-001 and DP-078-001 weld joint SEG-02-004 at the 4BE. The QA inspector observed that ZPMC was not scanning for transverse indications. The QA inspector had a conversation with ZPMC representative Fu Yu Hong and ABF representative on site. The QA inspector brought to their attention that ZPMC was not performing UT verification as required by the contract documents. ABF agreed and spoke with Mr. Xu Rong Gang. ZPMC agreed and scanned the two joint in question searching for transverse indications.

The QA inspector performed ultrasonic testing (UT) at the completed joint penetration at deck panel splice DP-078-001 and DP-079-001 weld joint SEG-020-003 and deck panel DP-077-001 and DP-078-001 weld joint SEG-02-004 at the 4BE. The QA inspector performed 10 % UT at random location. The QA inspector found that welds areas tested appeared to be in compliance with the contract documents. See UT report TL_6027 generated on this date.

Bay # 8

The QA inspector observed ZPMC inadvertently press the start button and welded an arc strike on the seismic performance critical member by the floor beam joint FB-025-003-079. The QA inspector had a conversation with

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the Lead CWI in charge Huang Wen Pang and with ZPMC representative Fu Xu Hong. ZPMC representatives informed that ZPMC planned to remove all the weld metal during arc strike but before ZPMC would issue a critical weld repair for the approval of the Engineer. See digital photograph below.

The QA inspector performed random verifications of the fabrication process. The QA inspector observed ZPMC performing multiples fabrications activities on bay 7; ZPMC was tack welding (fitting stiffeners) and drilling flanges from several floor beams members.

Seismic Performance Critical members (SPCM) Welder Re-Qualification

The QA inspector observed welders Wu Wangyong with identification # 050242 and Dan Deyin identification # 044795 welding with the flux cored arc welding (FCAW) at the corner sections SPCM weld joint # CA-002-003 and welding operator Xie Lianfiang # 045247 welding with the submerged arc welding (SAW) process at the floor beam SPCM weld joint # FB-025-003-079. The QA inspector performed random verifications of the welding operations. The QA inspector found that welding operations appeared to be in compliance with the contract documents. However, the QA inspector observed that the annual qualification for welding SPCM material expired.

The QA inspector was informed from ABF, ZPMC and Caltrans representatives that a RFI was answered by Caltrans allowing to extend the annual re-qualification for welding SPCM up to three years. No RFI # was provided. The QA inspector is still searching for the RFI in question.



Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Joshua T. Ishibashi, 086-13764710411., who represents the Office of Structural Materials for your project.

Inspected By:	Acuna, Alfredo	Quality Assurance Inspector
Reviewed By:	Lanz, Joe	QA Reviewer
